

**ASIA PACIFIC CARRIERS' COALITION**  
(Incorporated in the Republic of Singapore)

14 March 2011

RSN/SNN/fbm/308688/00001

Infocomm Development Authority of Singapore  
8 Temasek Boulevard  
#14-00 Suntec Tower Three  
Singapore 038988

**By Hand & E-mail**

**Attention: Ms Aileen Chia**  
**Deputy Director General (Telecoms & Post)**

Dear Madam

**Asia Pacific Carriers' Coalition – Submission in Response to Infocomm Development Authority of Singapore's Public Consultation on the Second Review of Singapore Telecommunications Limited's Reference Interconnection Offer**

We refer to the above matter.

Please find enclosed herewith the Asia Pacific Carriers' Coalition's submission dated 14 March 2011 in response to Infocomm Development Authority of Singapore's Public Consultation on the Second Review of Singapore Telecommunications Limited's Reference Interconnection Offer for your consideration.

We look forward to hearing from you.

Yours sincerely,

  
**Rajesh Sreenivasan**  
**Secretary, Asia Pacific Carriers' Coalition**

Enclosures

**Submission in response to IDA's Consultation Paper**

***"Public Consultation on the Second Review of Singapore  
Telecommunications Limited's Reference Interconnection  
Offer"***

14 March 2011

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**STATEMENT OF INTEREST**

This submission is provided by the Asia Pacific Carriers' Coalition ("**APCC**") in response to the 21 January 2011 invitation by the Infocomm Development Authority ("**IDA**") to comment on its "Public Consultation on the Second Review of Singapore Telecommunications Limited's Reference Interconnection Offer" ("**RIO Consultation Paper**").

The APCC is an industry association of global and regional carriers operating in Asia-Pacific, formed to work with Governments, National Regulatory Authorities and Consumers to promote open market policies and best-practice regulatory frameworks throughout the Asia-Pacific region, that will support competition and encourage new and efficient investment in telecommunications markets.

APCC submissions reflect the consensus of opinion among at least a majority of its members. Therefore none of the views expressed in this submission should be attributed to any individual member of the APCC.

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**I. SUMMARY OF ISSUES**

1. The APCC is an enthusiastic contributor to this consultation and review process. We would encourage a more regular review in practice, and without limiting the scope of review, as we note that this review is rather limited in scope considering that the last review was conducted on 5 April 2005 with the RIO validity being extended for another 3 years from 16 November 2008.
2. The APCC responds to each of the four issues raised by the IDA. The response might be summarized, very briefly, as follows:
  - a. **Backhaul access to CLS**

The APCC supports this in principle, noting that it should not interfere with access for capacity holders.
  - b. **Backhaul access to exchanges**

Of secondary importance to CLS backhaul access, the APCC supports this in principle, noting that it should not interfere with existing connectivity models or limit future connectivity options.
  - c. **Number Portability**

Although not directly impacting the APCC, the APCC agrees that portability is an important feature of competitive markets and that such a mechanism should be multilateral and standardized.
  - d. **Transit capacity mechanism**

Although the APCC is not aware of this as an immediate concern, the APCC considers that such a mechanism would be a prudent way to manage a foreseeable issue. There is an issue as to how costs are to be recovered.
3. The APCC provides additional commentary and suggestions on some other key issues arising from the SingTel RIO which are not addressed by the IDA Consultation, but which the APCC considers must be dealt with. These include:
  - a. **Modernisation of communications with Requesting Licensees**
  - b. **Escalation of technical issues**
  - c. **Service level guarantees**

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**II. CONSULTATION PAPER IS LIMITED IN AMBIT**

4. In the ten years that it has been in operation, SingTel's Reference Interconnection Offer ("RIO") has proven to be an important means for competing telecommunications operators to gain access to the incumbent operator's services and facilities on transparent and non-discriminatory terms.
5. Because the social and economic costs of duplication of infrastructure are prohibitively high, non-discriminatory access will continue to be fundamentally important to competitive provision of telecommunications services in Singapore. As the industry and services develop, however, the RIO must develop as well, to ensure that it performs its role as effectively and efficiently as possible.
6. The role of this round of consultation should therefore be seen in light of its significance. The IDA makes clear that it intends that the SingTel RIO should change. In the RIO Consultation Paper the IDA describes its intended procedure as follows:

...IDA has identified several key issues that may have significant implications on the relevance and scope of SingTel's RIO going forward. IDA would like to hear the industry's views and comments on these issues before commencing a review of the RIO, i.e., by requiring SingTel to submit a proposed revised RIO.
7. The APCC welcomes the RIO Consultation Paper's description of and invitation for comments on four possible adjustments to the RIO: backhaul access to CLS; backhaul access to local exchanges; removal of number portability; and improvements to provision of transit interconnection services.
8. However, aware of the importance of this consultation and the subsequent RIO review, the APCC is concerned that the RIO Consultation Paper:
  - a. does not describe any industry study, benchmarking or other preparatory work having been carried out by the IDA to lay a basis for proposing amendments and soliciting comments; and
  - b. does not explain the process or reasoning by which the four issues raised by the IDA were identified as "key issues"; and
  - c. does not allow scope for other issues to be put to SingTel as a requirement for proposed amendments to the RIO.
9. The APCC strongly urges the IDA to take into account other issues raised in the course of consultation which, in keeping with the matters raised, can be seen as ensuring that the SingTel RIO continues to be relevant, improves its efficiency and is suitable for its purposes.
10. The IDA process shows that SingTel will 'hold the pen' for drafting amendments to the RIO, under the proposed process. The APCC calls on the IDA in its review to ensure that the requirements for change should be outcome-focused and sufficiently detailed to avoid dispute over the scope of the requirements.

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**III. COMMENTS ON PARTICULAR PROPOSALS**

11. The IDA's proposals for addressing the "key issues" are unobjectionable in themselves. The APCC remains concerned, however, that the coherence and effectiveness of telecommunications regulation in Singapore is threatened by a lack of rigorous analysis of market conditions. The APCC urges the IDA to conform to good regulatory practice by articulating fully the market failings that particular proposals are intended to address, the available options for addressing them, and the IDA's reasons for its selection of the preferred option over others.

**Access to CLS for backhaul facilities**

*Question 1a (i) Whether IDA should allow third party operators to access SingTel's SCLS for the sole purpose of building backhaul connectivity and providing backhaul services to allow other operators to access submarine cable capacity*

12. The APCC supports, in principle, amending the RIO to allow third party operators to access SingTel's cable landing stations (CLSs) for the purpose of building backhaul connectivity and providing backhaul services to other operators but is unclear as to the basis for this proposal. The RIO Consultation Paper very briefly describes the existing rules regarding backhaul access (para 7) and expresses the IDA's hopes: "...IDA believes that the above proposed move will further ensure that international connectivity costs in Singapore will remain competitive compared to other markets" (para 8) but provides no data that supports a conclusion that the lack of backhaul access is the cause of current high connectivity costs or that this particular intervention can be expected to be effective.
13. While the APCC is supportive, in principle, of further liberalizing backhaul provision, the APCC considers the proposed amendment essentially experimental in nature.
14. The entry of additional backhaul providers might well increase competition in backhaul service provision and assist in bringing backhaul connectivity pricing closer to a competitive level but the APCC is unconvinced that a third party operator would in fact seek CLS access "for the sole purpose of building backhaul connectivity" even if the RIO were amended to enable this.
15. The APCC is also concerned that such an amendment must not undermine the ability of operators who own cable capacity to establish their own backhaul to their capacity.

*Question 1a (ii) Whether the RIO should still retain some form of priority for Licensees who have their own submarine cable capacity and wish to deploy their own backhaul facilities. If yes, whether there will be administrative difficulties and how these (if any) may be addressed appropriately;*

*Question 1a (iii) Whether there are any other benefits and costs that may be brought about by such a measure, which IDA should be aware of and should take into consideration.*

16. The APCC submits that priority must be guaranteed for operators that own submarine capacity. If the proposed amendment were given effect, it must be accompanied by measures to protect the

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future ability of capacity owners to establish their own backhaul to their capacity. Operators who secure access under the amendment “for the sole purpose of building backhaul connectivity” must not thereby crowd out submarine capacity owners.

17. The ability of capacity owners to self-build backhaul, which currently is protected under the RIO, helps to ensure that capacity is not ‘stranded’ at the landing station and third parties cannot extort supra-competitive backhaul prices. Hence, additional entry to the backhaul market under the RIO would be welcome provided that it did not adversely impact the freedom of capacity owners to establish their own backhaul.
18. The difficulty this poses is the effective management of limited (or constrained) resources such as collocation space and duct and manhole capacity. To ensure capacity owners are not ‘crowded out’ is likely to require active oversight by the IDA and an obligation on SingTel to construct additional capacity, at its expense, where necessary to prevent any such crowding out.

**Access to Local Exchanges for backhaul facilities**

*Question 1b (i) Whether IDA should allow third party operators who wish to build local connectivity to SingTel’s local exchanges for the sole purpose of providing connectivity services for other operators co-located at SingTel’s local exchanges for interconnection and accessing unbundled network elements and services;*

*Question 1b (ii) Whether IDA should allow third party operators who wish to build local connectivity to SingTel’s local exchanges, for the purpose of accessing other operators’ mandated services which will require access to SingTel’s local exchanges.*

19. The APCC supports, in principle, amending the RIO to allow third party operators to access SingTel’s local exchanges for the purpose of providing connectivity services to other operators or for the purpose of accessing other operators’ mandated services but APCC is unclear as to the basis for this proposal. The RIO Consultation Paper provides no data to support a conclusion that the lack of local exchange access is the cause of current high connectivity costs or that this particular intervention can be expected to be effective.
20. The entry of additional connectivity providers might well increase competition in backhaul service provision and assist in bringing connectivity pricing closer to a competitive level but the APCC is unconvinced that a third party operator would in fact seek local exchange access “for the sole purpose of providing connectivity services” even if the RIO were amended to enable this.
21. The APCC is also concerned that such an amendment must not undermine the ability of collocated operators to establish their own connectivity.



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*Question 1b (iii) Whether the RIO should still retain some form of priority for Licensees who have co-located at SingTel's local exchanges and wish to deploy the own connectivity facilities. If yes, whether there will be administrative difficulties and how these (if any) may be addressed appropriately;*

*Question 1b (iv) Whether there are any other benefits and costs that may be brought about by such measures, which IDA should be aware of and should take into consideration.*

22. APCC perceives that the issue of priority for operators that are collocated at SingTel local exchanges is less urgent than in relation to operators who own submarine cable capacity. Nevertheless, operators who secure access under the amendment “for the sole purpose of providing connectivity services” must not thereby be put in a position to inhibit collocated operators from establishing their own connectivity if they wish to do so. If collocated operators could be inhibited from establishing their own connectivity by the entry of ‘connectivity providers’, then connectivity providers would essentially be building their own bottleneck. Hence, additional entry to the connectivity market under the RIO would be welcome provided that it did not adversely impact the ability of collocated operators to establish their own connectivity.
23. The difficulty this poses is the effective management of any limited (or constrained) access resources. To ensure collocated operators are not adversely affected by the entry of connectivity providers is likely to require active oversight by the IDA and an obligation on SingTel to construct additional capacity, at its expense, where necessary to preclude any such inhibition of access.

**Removal of Number Portability Service Schedule**

*Question 2 (i) Whether it will be appropriate to remove the number portability service from SingTel's RIO; and*

*Question 2 (ii) IDA's proposal to develop advisory guidelines for multi-party number portability service arrangements, and the specific issues (if any) that the guideline should address.*

24. The APCC's members generally have little direct involvement in provision of domestic voice services in Singapore, so are not directly affected by the inclusion or removal of a number portability service from SingTel's RIO.
25. As industry participants concerned in the provision of modern telecommunications services to end users, however, the APCC observes that number portability is highly important to customers and widely regarded as critical to retail-market competition. However, it is not well catered for under the fixed number portability model currently implemented in Singapore.
26. In Singapore, portability of numbers between fixed networks has hitherto been implemented on a one-to-one basis, by bilateral agreement between donor networks and recipient networks. Such an approach is highly inefficient in the multi-operator environment now existing in Singapore.

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27. The IDA should assist fixed line voice service providers to coordinate the implementation of fixed number portability on a centralized basis. Such an approach to portability might better serve domestic customers' freedom to choose among domestic operators, while ensuring that porting issues do not inhibit substitution between operators is conducive to competition in domestic services markets. The costs of such a centralized implementation should be borne by domestic fixed line operators, in accordance with IDA guidelines. The APCC does not identify any specific issues that portability guidelines should cover but may comment further on any such guidelines, if appropriate.

**Provision of transit services**

*Question 3 (i) Whether SingTel's RIO should prescribe that SingTel should be responsible for procuring additional link capacity for the conveyance of transit traffic; and*

*Question 3 (ii) If so, what would be an appropriate mechanism to allow SingTel to recover the reasonable costs of doing so.*

28. The APCC agrees that, as a matter of principle, SingTel's RIO should provide that SingTel is responsible for procuring additional link capacity for the conveyance of transit traffic in the event that interconnection links between SingTel and the terminating party reach full capacity.
29. The APCC is not aware of this having occurred or been a source of difficulty for any operator up to this point but supports amending the RIO to ensure it does not in future arise as a difficulty.
30. The RIO should provide for SingTel to recover its reasonable costs of providing additional link capacity for the conveyance of transit traffic, calculated in accordance with the principles set out in Appendix 1 of the *Code of Practice for Competition in the Provision of Telecommunications Services 2010*. That is, SingTel must be required to use the Forward-Looking Economic Cost methodology to identify relevant costs associated with the service and Long Run Average Incremental Cost methodology for computation of the price of the service.
31. The APCC notes that an issue may arise as to which operator the initial set-up and provisioning costs are recovered from. If the mechanism is to allow Operator A to encourage or require more capacity between Singtel and Operator B then a question arises as to whether Operator A should contribute to the set-up or provisioning cost. The principles set out in paragraph 3.2(c) of Appendix 1 to the *Code of Practice for Competition in the Provision of Telecommunications Services 2010* suggest that SingTel and Operator B would be responsible for the provisioning costs, although the causation principle might attribute some part of those costs to Operator A. For certainty, this question should be addressed by the relevant RIO amendment. The APCC submits that allocation of costs tri-laterally would be likely to prove administratively complex.
32. It appears to the APCC that paragraph 3.2(c)(iii) on page 102 of the *Code of Practice for Competition in the Provision of Telecommunications Services 2010* deals adequately with the question of inter-operator payment for traffic carried over the link capacity.

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**IV. RECOMMENDATIONS FOR OTHER CRITICAL RIO AMENDMENTS**

33. SingTel's RIO, though commercial in form, so closely interacts with regulation that it is essentially indivisible from the rest of the regulatory framework. Having studied the RIO Consultation Paper, the APCC remains concerned that regulation continues to be adjusted incrementally in Singapore without the necessary support that would be provided by a thoroughgoing analysis of market conditions, and holistic consideration of remedies and processes.
34. The RIO is one of the pillars of Singapore's commercial and regulatory environment for the provision of telecommunications services.
35. The APCC takes this opportunity to recommend ways in which it should be amended in order to improve its effectiveness.

**Modernisation of communications with Requesting Licensees**

36. There is no plausible reason for SingTel persisting in requiring all communications under or in relation to a RIO Agreement (see SingTel RIO clause 28) to be delivered by hand, post or transmitted by fax.
37. In a state which otherwise is as modern as Singapore, for all operational communications with a corporation of SingTel's stature to be required to sent and received by fax is an anachronism.
38. The APCC does not suggest that all types of inter-operator communications, such as legal notices, for example, should be allowed electronically. Because the RIO will continue to be an important feature of the commercial and regulatory environment, however, the RIO's administrative machinery must move with the times. The RIO should therefore be amended to provide that SingTel implement an electronic order management system. To APCC members' knowledge, SingTel has long implemented such systems for its own corporate customers. To persist with a fax-only system for the orders of Requesting Licensees under the RIO is fundamentally inconsistent with the principle of non-discriminatory access.

**Escalation of technical issues**

39. The management and escalation of technical matters should be improved.
40. Service affecting faults should not be treated differently depending on the time at which they occur. The SingTel RIO (see SingTel RIO, Main Body, paragraph 8.5) unreasonably differentiates between Office Hours and other times in relation to fault performance.
41. Modern telecommunications services are a 24-hour, 7-day business. Network operations centres are always staffed or monitored around the clock and the level of technical attention given to a service affecting outage should not be dependent on staff office hours. The SingTel RIO is materially out of date in this respect.

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42. All faults should be subject to the same response and repair time, regardless of the time at which they occur.
43. The times for response should be benchmarked and revised – in an era of expectations of always-available instantaneous communications, service affecting faults should be the subject of attention within minutes, not hours. The APCC would consider that a 10 or 15 minute response time should be a maximum for wholesale service issues.
44. The escalation of faults should not require the agreement of the parties that the matter ought to be escalated (see SingTel RIO, Main Body, paragraph 8.6). If the customer of a service feels that the technical response to an issue should be escalated, then the matter should be escalated. This provision should be changed.

**Service Level Guarantees**

45. The commercial provision of communications services invariably involves negotiation and indeed competition over matters of certainty or assurance for intermediate and end customers. Commonly the areas in which end customers seek certainty or assurance include initial service provision lead times, expansion or reduction lead times, and operational performance in relation to availability, maintenance and repair.
46. Even in the rarer cases where end customers are less concerned with such matters, intermediate operators have their own commercial, technical and compliance concerns with those matters.
47. The APCC does not consider that the SingTel RIO and the regulatory framework in which it sits adequately addresses these issues. The APCC acknowledges that the SingTel RIO does contain some service level guarantees but the APCC suggests that the IDA should require that the SingTel RIO should include comprehensive service level guarantees for most or all services, and for most or all elements of service delivery, availability and repair.
48. The APCC also suggests that:
  - a. operators dealing with SingTel should not have to claim service level guarantees (see for example, paragraph 4(a) in Schedule 4B.6 to the SingTel RIO). Quality of service should be monitored by SingTel and reported routinely and service level guarantees should be reported and awarded automatically as a part of the service; and
  - b. service level guarantees should not be treated as *ex gratia* in nature (see for example paragraph 4(c)(i) in Schedule 4B.6 to the SingTel RIO) they should be an enforceable and transferable debt.

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**V. CONCLUSIONS**

49. The APCC is an enthusiastic contributor to the present RIO consultation and review process. Over the past decade the RIO has proved to be an important means for competing telecommunications operators to gain access to the incumbent operator's services and facilities on transparent and non-discriminatory terms.
50. Clearly, non-discriminatory access will continue to be fundamentally important to competitive provision of telecommunications services in Singapore. As the industry and services develop, however, the RIO must develop as well, to ensure that it performs its role as effectively and efficiently as possible. Accordingly, the APCC would encourage a more regular review in practice, and without limiting the scope of review, as we note that this review is rather limited in scope considering that the last review was conducted on 5 April 2005 with the RIO validity being extended for another 3 years from 16 November 2008.
51. The APCC responds to each of the four issues raised by the IDA, as follows:
- a. **Backhaul access to CLS** - The APCC supports this in principle, noting that it should not interfere with access for capacity holders.
  - b. **Backhaul access to exchanges** - The APCC considers this to be of secondary importance to CLS backhaul access but supports this in principle, noting that it should not interfere with existing connectivity models or limit future connectivity options.
  - c. **Number Portability** - Although not directly impacting the APCC, the APCC agrees that portability is an important feature of competitive markets and that such a mechanism should be multilateral and standardized.
  - d. **Transit capacity mechanism** - Although the APCC is not aware of this as an immediate concern, the APCC considers that such a mechanism would be a prudent way to manage a foreseeable issue. There is an issue as to how costs are to be recovered.
52. The APCC provides additional commentary and suggestions on some other key issues arising from the SingTel RIO which are not addressed by the IDA Consultation, but which the APCC considers must be dealt with. These include:
- a. **Modernisation of communications with Requesting Licensees** - The RIO should therefore be amended to provide that SingTel implement an electronic order management system.
  - b. **Escalation of technical issues** - All faults should be subject to the same response and repair time, regardless of the time at which they occur. The times for response should be benchmarked and revised – a 10 or 15 minute response time should be a maximum for wholesale service issues.
  - c. **Service level guarantees** - the SingTel RIO should include comprehensive service level guarantees for most or all services, and for most or all elements of service delivery, availability and repair. Service level guarantees should be reported on and awarded automatically and should not be treated as *ex gratia* in nature.

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53. The IDA's summary of the proposed process shows that SingTel will 'hold the pen' for drafting amendments to the RIO. The APCC calls on the IDA in its review to ensure that the requirements for change should be outcome-focused and sufficiently detailed to avoid dispute over the scope of the requirements.